California Red-legged Frog

(Rana draytonii)

Protocol Survey

For

Righetti Agricultural Cluster

Vesting Tentative Tract 3004
APN 044-051-028

San Luis Obispo County
California

Prepared for

The Righetti Family
4750 Righetti Road
San Luis Obispo, CA 93401

By

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1.0 Introduction

This report presents the results of a protocol level survey for the California red-legged frog (CRF) conducted for the Righetti Agricultural Cluster project in San Luis Obispo County. The California red-legged frog is a federally listed threatened species that occurs in drainages and ponds throughout the Central Coast. The protocol surveys were conducted on an approximately 200 acre agricultural property that contains ephemeral drainages, an intermittent stream, and an agricultural pond.

The information in this protocol survey report is presented according to the current United States Fish and Wildlife Service (USFWS) publication, "Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog" (August 2005).

This document includes a site assessment for the California red-legged frog (Section 2.0), presents the results of protocol field surveys (Section 3.0), and provides a discussion of the results as they pertain to the proposed project. Maps are provided in Section 4.0, photographs in Section 5.0, and copies of field notes and CNDDB reports are included as exhibits.

1.1 Project Location and Description

The 200 acre subject property (Property), APN 044-051-028, is located southeast of the City of San Luis Obispo on the lower west slope of the Santa Lucia Mountains in San Luis Obispo County, California (Section 4.0, Figure 1). Approximate coordinates for the center of the Property are latitude 35.247335 °N and longitude 120.602186 °W (WGS 84) in the Lopez Mountain and Arroyo Grande NE USGS 7.5 minute quadrangles. Elevation varies from approximately 320 to 440 feet above sea level. Access to the Property is from Orcutt Road via a paved private road to the west property corner or from Avocado Lane to the southeast property corner.

The proposed project is an agricultural cluster residential development consisting of six residential lots varying from 1.08 to 2.47 acres, and a seventh lot consisting of the remaining 191.11 agricultural acres. Primary access to the residential development would be from Orcutt Road at the west end of the Property. An emergency access road is proposed on existing agricultural roads from Avocado Lane, through avocado orchards and vineyards, across each of the two main drainage stems, to the residential lots. The emergency access road would be a 20 foot wide all-weather road.

2.0 Site Assessment for the California Red-legged Frog

2.1 Methods

An assessment of potential CRF habitat on the Property and in surrounding areas was conducted by Althouse and Meade, Inc. biologists Jason Dart and Audrey Woodruff on May 21, 2009. The site assessment field work consisted of a day-time walking survey of all drainages on the Property. Notes and photographs were taken to document potential CRF habitat on the Property. A representative set of photographs is included in Exhibit B for reference.

United States Geological Survey (USGS) topographic maps and high resolution aerial photographs of the vicinity were reviewed to locate potential CRF habitat in the vicinity of the Property. Maps and aerial photographs are included in Exhibit A, including a site assessment map that provides an overlay of streams and ponds near the Property.

Previous biological reports from the region, both published and unpublished, were reviewed for information on red-legged frog site assessments and presence/absence survey results (Althouse and Meade, Inc. June 10, 2004, Althouse and Meade, Inc. July 2004, Rincon Consultants, Inc. 2005, Althouse and Meade, Inc. 2005, Althouse and Meade, Inc. July 2005a, Althouse and Meade, Inc. July 2005b, Althouse and Meade, Inc. September 2005, Althouse and Meade, Inc. August 2006, Althouse and Meade, Inc. September 2006, Althouse and Meade, Inc. August 2007, Althouse and Meade, Inc. October 2007).

The California Natural Diversity Database (CNDDB) (July 4, 2009 data) was reviewed for CRF occurrences in the region, and current and historic specimen data from the Museum of Vertebrate Zoology (MVZ) and the California Academy of Sciences (CAS) was reviewed for information regarding CRF in the region.

2.2 Is the Property Within the Current or Historic Range of the CRF?

The Property is located within the currently described range of the California red-legged frog, which extends primarily in coastal regions from Mendocino County south into northern Baja, Mexico. To the east of the Coast Ranges, the California red-legged frog occurs through the northern Sacramento Valley to the foothills of the Sierra Nevada Mountains, south to Tulare County and Kern County.

San Luis Obispo County contains populations of CRF in drainages throughout the Santa Lucia Mountains, on both the coastal slope and inland drainages. Red-legged frogs occur on the coastal slope along the entire length of the County. Reports are most numerous in the area between San Simeon and Morro Bay, are entirely lacking in the Port San Luis region (possibly due to lack of survey effort), and are sporadic in watersheds from the vicinity of Avila Beach south to Guadalupe. Inland, red-legged frogs occur through the Chorro Valley to the City of San Luis Obispo, east through the Los Padres National Forest to the upper Salinas River watershed at Pozo (critical habitat unit SLO-8), and north into the Santa Margarita Valley. CRF are increasingly uncommon within the Salinas Valley north through Atascadero, and have not been reported from Templeton, Paso Robles, or San Miguel.

Red-legged frogs do not occur in the arid interior region of the County, except for a population within the San Andreas Rift Zone and Cholame Valley in the far northeast corner of the County (critical habitat areas SLO-1a and SLO-1b).

2.3 Known Localities of the CRF

2.3.1 Database and literature review

The database and literature review conducted for this assessment includes records for the CRF from three sources. First, we reviewed the CNDDB for CRF records within at least five miles of the Property. This search examined records in the Arroyo Grande NE, Lopez Mtn., San Luis Obispo, and Pismo Beach USGS 7.5 minute quadrangles. The results of this search form the basis for our database review. The nearest CNDDB record is located approximately 2.3 miles north of the Property (Table 1).

Second, the Museum of Vertebrate Zoology (MVZ) at the University of California, Berkeley and the California Academy of Sciences (CAS) in San Francisco maintain on-line databases of specimen records. These databases were accessed on May 25, 2009. A specimen query for CRF in San Luis Obispo County resulted in 10 specimen records from MVZ and 33 specimen records from CAS. Numerous specimens are from the same locality. Specimen records identified from the museum search account for three localities within five miles of the Property that are not included in the CNDDB. The nearest museum record is located approximately 2.2 miles north of the Property.

Third, consultant reports, published and unpublished, were reviewed for information about the distribution of CRF in the San Luis Obispo and Arroyo Grande area (refer to Sections 2.1 and 3.0). The nearest record identified from consultant reports that is not a CNDDB record is located approximately 1.7 miles southwest of the Property and represents the closest record to the Property.

Information is provided in Table 1 for all CRF records reported within five miles of the Property. The record number, location, date, approximate distance from the Property, and data source are provided.

2.3.2 Reports of CRF within 1.6 kilometers (1 mile) of the Property

Our research did not locate any records, either current or historic, of CRF from within 1.6 kilometers (1 mile) of the Property, although suitable habitat is present (refer to Section 2.4.2).

2.3.3 Reports of CRF within 8 kilometers (5 miles) of the Property

Ten CRF localities are documented within five miles of the Property by observations reported to CNDDB, specimens deposited at CAS and MVZ, and by observations documented in unpublished reports. The closest locality is from Davenport Creek near the San Luis Obispo Country Club approximately 1.7 miles southwest of the Property (Rincon Consultants, Inc. 2005). Several records are from Reservoir Canyon between 2.2 and 3.2 miles north northwest of the Property (MVZ #59685, CNDDB #157, #639, and #245). Approximately 2.7 miles south of the Property is a locality documented by 12 specimens collected in 1917 at "Edna, Rancho Corral de Piedra" (CAS #43285-43296).

The remaining records are from various reaches of San Luis Creek and its tributaries within and adjacent to the City of San Luis Obispo (Table 1).

TABLE 1. CRF RECORDS. Ten CRF localities were determined to be within five miles of the Property. The approximate distance from the Property is provided for each record.

Record No.	Location	Date	Approximate Distance from the Property	Source
Rincon 2005	Davenport Creek near the San Luis Obispo Country Club, Edna Valley	2005	1.7 miles SW	Rincon Consultants, Inc. 2005, unpublished report Observation by J. Davis and W. Knight
MVZ #59685	Reservoir Canyon, 2 miles east of San Luis Obispo	May 3, 1953	2.2 miles N	MVZ Collected by R. Zweifel Identified by V. Vredenburg
CNDDB #157	Tributary to Reservoir Canyon Creek; approximately 4.0 km east of San Luis Obispo	May 1, 1995	2.3 miles N	CNDDB Record Reported by R. Schmieder and K. Glinka
CAS #43285 - 43296 12 specimens	Edna, Rancho Corral De Piedra, San Luis Obispo Co.	May 1, 1917	2.7 miles S	CAS Collected by J. Van Denburgh and J. Slevin
CNDDB #639	Reservoir in Reservoir Canyon, San Luis Obispo	1991	2.8 miles NW	CNDDB Record Reported by M. Hanson
CNDDB #245	Reservoir Canyon, vicinity of San Luis Obispo Creek, east of San Luis Obispo	November 19, 1996	3.2 miles NW	CNDDB Record Reported by J. Greven
CNDDB #156	Tributary to San Luis Obispo Creek flowing under Hwy 101; approx. 0.1 km southeast of Hwy 101 and Fox Hollow Rd.	May 31, 1995	3.3 miles NW	CNDDB Record Reported by R. Schmieder and C. Striplen
CAS #57631 and #57632	2.5 miles south of San Luis Obispo	July 4, 1923	3.7 miles W	CAS Collected by J. Vindum

Record No.	Location	Date	Approximate Distance from the Property	Source
CNDDB #895	Just north of the confluence of Prefumo Creek and San Luis Obispo Creek	August 9, 2006	3.9 miles W	CNDDB Record Reported by B. Langle
CNDDB #155	Miossi Creek, 0.5-1.0 km north of Hwy 101, approx. 1.4 km east of California Polytechnic State University	May 18, 1995 October 1, 1998	4.0 miles NW	CNDDB Record Reported by R. Schmieder, K. Glinka, and M. Cassady

2.4 Available Habitat on and in the Vicinity of the Property

2.4.1 Habitat description on the Property

The Property is an agricultural parcel with avocado orchards and vineyards. Annual grasslands comprise the remaining upland habitat areas. The grasslands are grazed in most years. Existing agricultural roads are present in all areas of the Property. A pond located within the orchards and vineyards in the east half of the Property is located within a small tributary channel. The pond is plumbed for agricultural use, and is maintained free of vegetation.

An un-named intermittent drainage bisects the Property, draining in a southwesterly direction. The drainage is composed of two primary stems that capture water from numerous small tributaries on the south slope of the Santa Lucia Range. The primary stems converge in the center of the Property, and the drainage continues through the Property, north of the airport, along Buckley Road, eventually connecting with San Luis Creek between farm field along South Higuera Street. Within the Property the intermittent drainage supports a riparian tree canopy of Western sycamore (*Platanus racemosa*), arroyo willow (*Salix lasiolepis*), and coast live oak (*Quercus agrifolia*) trees. The sycamores provide partial shade to the stream and create root tangles on the banks that are used for cover by aquatic organisms. The understory is mostly open with occasional shrubs, including California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*), and coyote brush (*Baccharis pilularis*). Emergent wetlands dominated by cattails (*Typha angustifolia*) are present in several reaches of the stream. Bullfrogs (*Rana catesbeiana*), mosquitofish (*Gambusia affinis*), and crayfish (unidentified species) were observed to be very common in all areas containing surface water.

A tributary to the intermittent drainage originates in the western half of the Property, connecting with the intermittent drainage south of the Property line. It begins as a small grassy channel and gradually increases in width and depth down to an existing dirt road that crosses the channel. Below the road crossing the channel becomes incised from the

culvert outflow pipe, and contains herbaceous wetlands. No pool habitat is present within this tributary.

Three small tributary channels connect with the main intermittent drainage from the east half of the Property. The northernmost tributary channel contains wetlands and short-term pool habitat. The southern two tributary channels are ephemeral grassy swales with no pool habitat or riparian canopy.

All tributary channels on the Property were dry during our site in May 2009. These channels are not likely to support late season pool habitat, even during years of average or above average rainfall.

2.4.2 Habitat description within 1.6 kilometers (1 mile) of the Property

The Property is located in a rural residential area southeast of the San Luis Obispo city limits, surrounded primarily by rangeland, orchards, and vineyards. Grasslands and vineyards are present south of the Property. Vineyards and avocado orchards are present east of the Property. To the west is the City of San Luis Obispo, and north of the Property are the foothills of the Santa Lucia Range. Several stock ponds and reservoirs are visible on aerial photographs within one mile of the Property (refer to Exhibit A, Figure 2).

2.5 Discussion

Habitat in the main intermittent drainage within the Property boundaries, including both of the primary stems, is suitable for the California red-legged frog. Despite drought conditions in the spring of 2009 there was surface flow downstream of the confluence of the primary stems in May. In June and July surface flow had ceased but pools with depths up to two feet were present. Root tangles, undercut banks, and overhanging vegetation provided very good cover for amphibians. It appears that in most years suitable water conditions are present to support breeding CRF.

Within the riparian habitat sufficient cover is present in most reaches of the stream for CRF to find refuge through the summer and fall when surface water may be very low or absent. Overland movements by CRF are possible, although intensive agriculture in some areas could increase likelihood of mortality. Ponds and reservoirs in the area could provide aquatic habitat during summer months.

Organisms known to be predators of red-legged frogs, their larvae and their eggs are present in high densities within the main intermittent drainage. High predator density reduces the overall habitat suitability for CRF.

3.0 Protocol Survey for the California Red-legged Frog

3.1 Field Survey Methods

Field survey methods follow the recommended guidelines in the USFWS publication "Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog" (August 2005). Field notes for each of the eight protocol surveys are included as Exhibit C.

Althouse & Meade, Inc. biologists Jason Dart and Audrey Woodruff conducted the protocol surveys. Three day surveys and five night surveys were conducted in 2009, during the breeding and non-breeding seasons, from May to July, as required by the USFWS protocol (Table 2). Most day surveys were conducted in the late afternoon and early evening (completed at least one hour before sunset). Night surveys commenced at least one hour after sunset, and covered the same survey areas as the day surveys.

TABLE 2. CRF SURVEYS. Survey dates, times, weather observations, survey ID, and biologist are provided for each CRF Protocol Survey.

Survey Date	Start Time Stop Time	Temp.	Wind	Weather Observations and Site Conditions	Survey ID	Biologist
5/21/09	11:25 am – 12:55 pm	67-74°F	4-7 mph	Sunny and breezy	Day #1 Breeding	J. Dart
5/21/09	9:05 pm – 9:53 pm	60°F	0-3 mph	Clear, cool, no moon	Night #1 Breeding	J. Dart A. Woodruff
6/4/09	6:19 pm – 7:10 pm	64°F	5-10 mph	Partly cloudy, breezy	Day #2 Breeding	J. Dart A. Woodruff
6/4/09	9:15 pm – 10:03 pm	58°F	5-7 mph	Partly cloudy, ¾ moon	Night #2 Breeding	J. Dart A. Woodruff
6/11/09	9:20 pm – 10:20 pm	58°F	0-3 mph	High clouds, cool	Night #3 Breeding	J. Dart A. Woodruff
6/29/09	10:55 pm – 11:40 pm	60°F	0-3 mph	Partly cloudy, cool	Night #4 Breeding	J. Dart A. Woodruff
7/9/09	7:00 pm – 7:23 pm	62-64°F	0-5 mph	High clouds, cool	Day #3 Non-breeding	J. Dart A. Woodruff
7/9/09	9:35 pm – 10:08 pm	52°F	0-3 mph	Clear, cool, no moon	Night #5 Non-breeding	J. Dart A. Woodruff

All surveys were conducted on foot. Binoculars (Eagle Optics 10x42 Denali and Canon 10x30 IS models) were used during both day and night surveys to scan stream shorelines, drainage banks, and pools for amphibians. For night surveys, each investigator used a MagLite® 4 D-cell focused beam flashlight to scan for eye-shines. These hand-held flashlights equipped with standard White Star® Krypton Lamps produce up to 23,000 candlepower. Ranid eye-shines have been detected with these lights at distances of over 100 feet (Althouse and Meade, Inc. 2007). A flashlight-binocular combination was used to scan shorelines and pools for eye-shines and movement. Our method was to hold the flashlight against the side of the head at eye-level with one hand, and steady the binoculars against the flashlight with the other hand.

Wildlife Data Sheets were used in the field to record results of field surveys (Exhibit C). Wildlife observations were recorded during each survey, including species, number of individuals, life stage, and behaviors of organisms observed (Table 3). Detailed field notes were taken during each survey (refer to Exhibit C). Tadpoles observed were identified visually using binoculars. A tadpole key (Stebbins 2003) was reviewed periodically throughout the survey period. Aquatic dip-net sampling was not conducted as part of this study.

Protocol surveys were conducted in all areas where water was present. This included the main intermittent drainage from the confluence downstream to the southern Property line, one pool in the western primary stem, portions of the eastern primary stem, and the agricultural pond (refer to Figure 2 in Exhibit A).

3.2 Field Survey Results

Protocol surveys for breeding and non-breeding seasons were conducted on the Property between May 21 and July 9 (Table 3). Two anurans were detected: Bullfrog (*Rana catesbeiana*) and Pacific chorus frog (*Pseudacris regilla*). No California red-legged frogs were detected during the protocol survey period.

Adult bullfrogs (*Rana catesbeiana*), and adult and larval Pacific chorus frogs (*Pseudacris regilla*) were found to be common within aquatic stream habitats on the Property. Crayfish (unidentified species), and mosquitofish (*Gambusia affinis*) were also abundant in aquatic stream habitats. The agricultural pond contained mosquito fish and Pacific chorus frogs; bullfrogs were not observed in the pond. Southwestern pond turtles (*Actinemys marmorata pallida*) and one juvenile bullhead (*Ameiurus* sp.) were observed in the main intermittent drainage.

TABLE 3. FIELD SURVEY RESULTS. Data is provided on wildlife observations for each of the eight surveys, including species, number of individuals, life stage, and location.

Survey Date	Survey ID	California Red-legged Frog (*Rana draytonii*)	Pacific Chorus Frog (*Pseudacris regilla*)	Bullfrog (*Rana catesbeiana*)	Other Species
5/21/09	Day #1 Breeding	0	Several adults calling and tadpoles observed	4 adults, one tadpole	1 adult Southwestern pond turtle (SWPT), mosquito fish, and crayfish

Survey Date	Survey ID	California Red-legged Frog (*Rana draytonii*)	Pacific Chorus Frog (*Pseudacris regilla*)	Bullfrog (*Rana catesbeiana*)	Other Species
5/21/09	Night #1 Breeding	0	Calling throughout, tadpoles observed	6 adults	3 unidentified ranid, many crayfish
6/4/09	Day #2 Breeding	0	Metamorphs and tadpoles	2 adults	Many crayfish and mosquito fish
6/4/09	Night #2 Breeding	0	Many calling	7 adults (one calling)	1 unidentified ranid "plop"
6/11/09	Night #3 Breeding	0	0	7 adults	1 unidentified ranid "plop"
6/29/09	Night #4 Breeding	0	Many calling	7 adults (one calling)	Many crayfish
7/9/09	Day #3 Non-breeding	0	0	1 adult calling	1 unidentified ranid "plop" and 1 SWPT
7/9/09	Night #5 Non-breeding	0	0	6 adults (one calling)	2 SWPT

3.3 Potential Dispersal Routes for the CRF

The California red-legged frog is known to make substantial overland movements while accessing breeding areas or dispersing during the dry season. Overland movements of up to one mile (1.6 km) are expected, and movements of more than two miles have been documented (USFWS 2002). As juveniles, CRF will make random movements up drainages as well as overland in search of late season aquatic habitat and future breeding areas. Once appropriate habitat is located, the frogs tend to replicate annual movements (migrate) between breeding and non-breeding habitat areas throughout their life. Tracking studies indicate a preference by adult CRF to move directly to a known aquatic habitat destination without regard to the type of upland habitat in between (USFWS 2002).

Suitable dispersal habitat is present for CRF to access aquatic habitats on the Property from extant populations in the Davenport Creek, Reservoir Canyon, and San Luis Obispo Creek watersheds.

3.4 Potential Threats to the CRF

The CRF does not occur on the Property. The un-named intermittent drainage appears to contain suitable habitat for the California red-legged frog, and although historic specimen records are lacking we expect red-legged frogs were once present in drainages on the

Property and in the Edna Valley area. As is the case in many areas of California that once contained populations of CRF, the reasons for their decline are unknown. Obvious threats include introduction of predators such as bullfrog, crayfish, and mosquitofish which can affect all life stages of CRF. Habitat degradation also likely plays a role, both in uplands and in riparian areas.

3.5 Discussion

Protocol surveys conducted during the 2009 breeding and non-breeding seasons on the Righetti property did not detect the California red-legged frog. The Property is within the known range of the CRF, and dispersal potential is present from populations presumed to be present (based on specimen and observation records) in the Davenport Creek, Reservoir Canyon, and San Luis Obispo Creek watersheds.

The absence of the California red-legged frog in on the Property is not due to a lack of appropriate habitat. The stream contains features such as moderately deep pools, undercut banks, and root tangles that are suitable for CRF. Other amphibians such as Pacific chorus frog and bullfrog are breeding successfully in the aquatic habitats within the Property. Moderate upland cover exists in the immediate vicinity of the aquatic habitats that could support CRF during summer drought.

CRF populations in the Davenport Creek, Reservoir Canyon, and San Luis Obispo Creek watersheds are part of a larger metapopulation in which organisms within each watershed primarily function independently but do interact on occasion, influencing watershed population dynamics. The metapopulation theory suggests that extirpated local populations can be re-colonized by nearby extant populations.

Presently CRF appear to be extirpated from, or existing at levels below detection in much of the Edna Valley, although re-colonization and population recovery is possible with increased awareness, habitat protection and habitat enhancements.

4.0 References

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Exhibit A – Maps

- **Figure 1. USGS Topographic Map**
- **Figure 2. CRF Site Assessment Map**
- **Figure 3. CRF Localities Map**

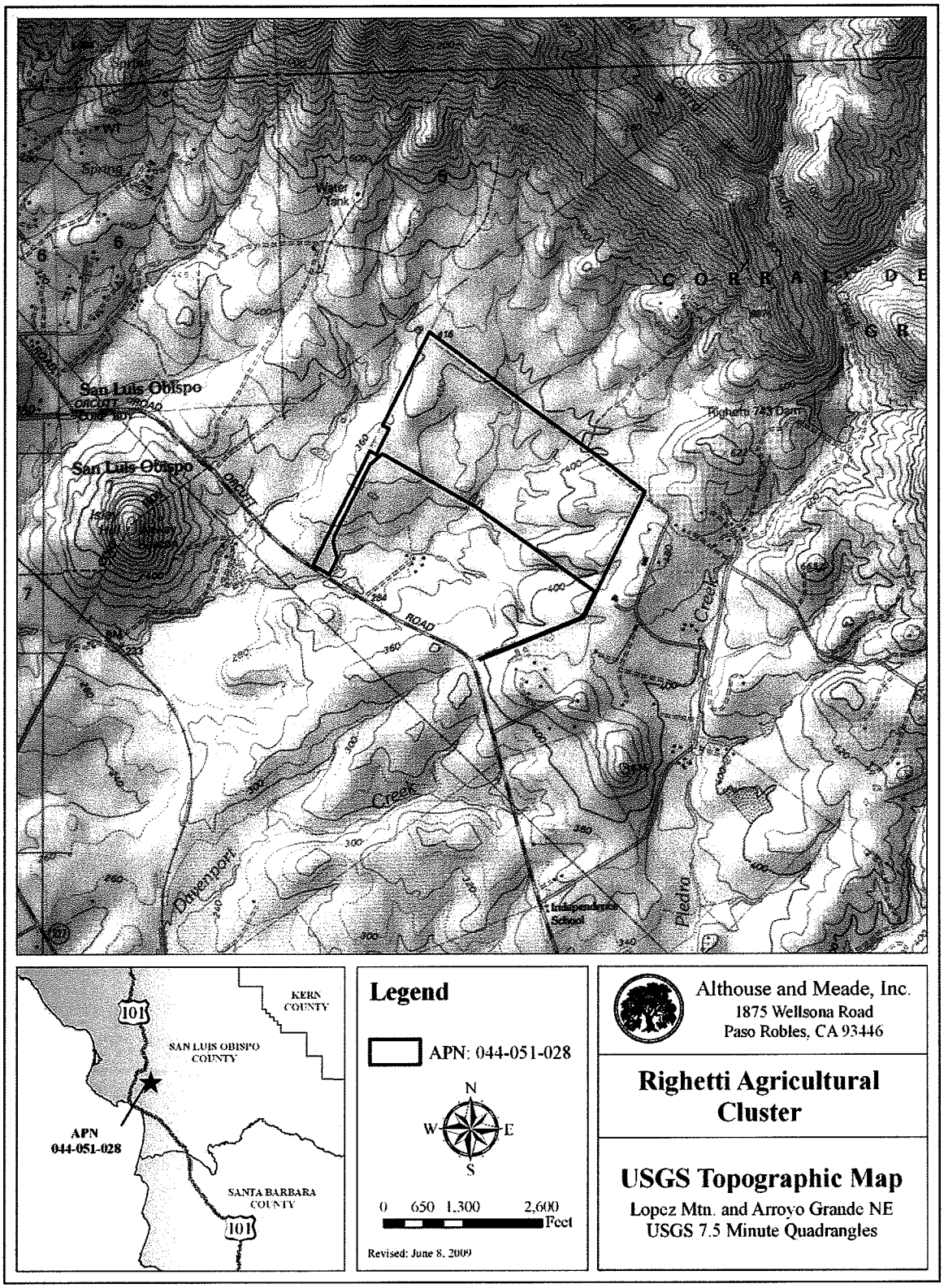

FIGURE 1. USGS TOPOGRAPHIC MAP. The Righetti property, indicated in red on a USGS 7.5 minute topographic map, is located east of the City of San Luis Obispo.

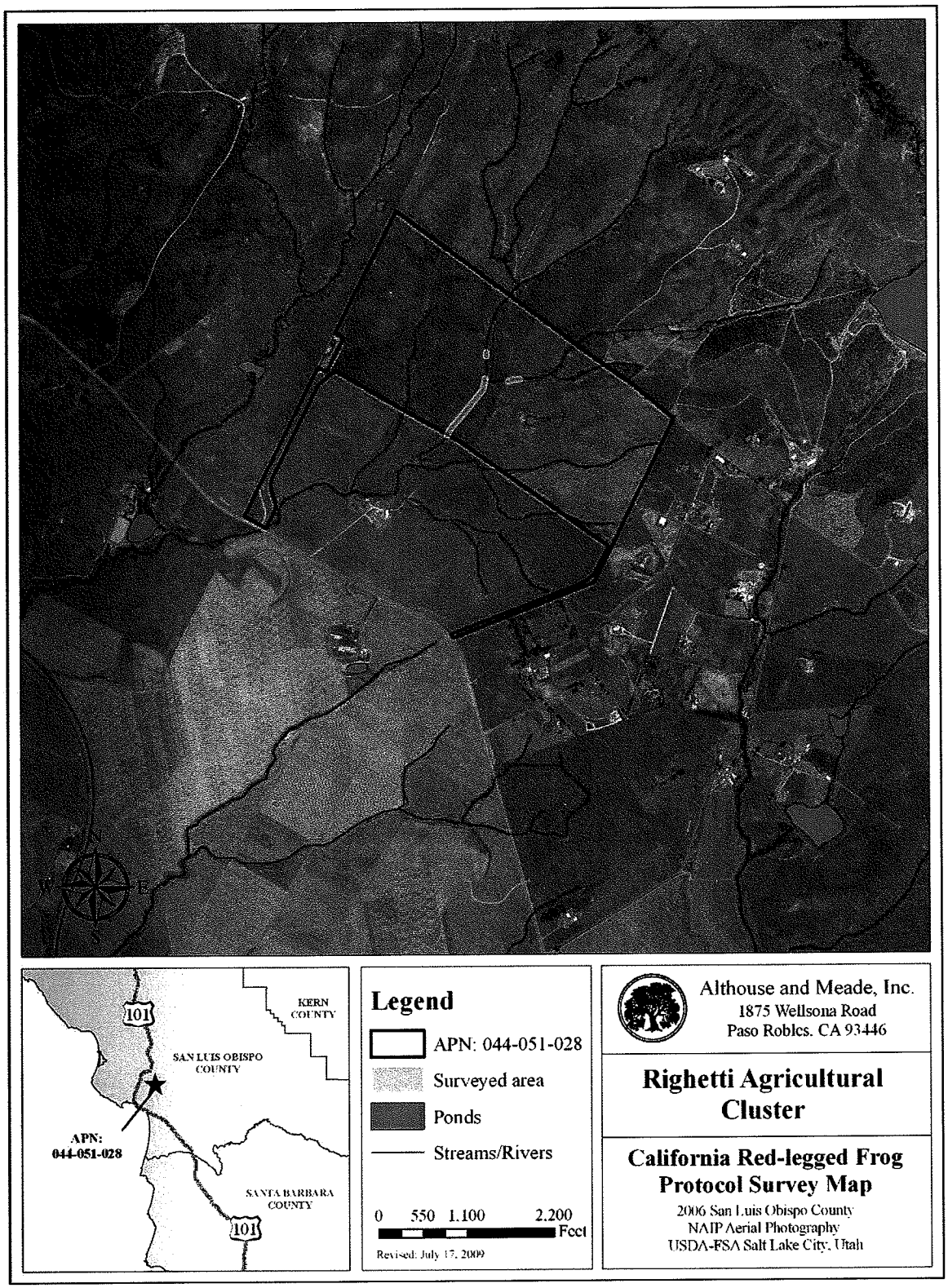

FIGURE 2. CRF PROTOCOL SURVEY MAP. Drainages and ponds on and in the vicinity of the Righetti property are depicted on a 2006 aerial photograph. Areas within the Property where protocol surveys were conducted are indicated by shaded areas.

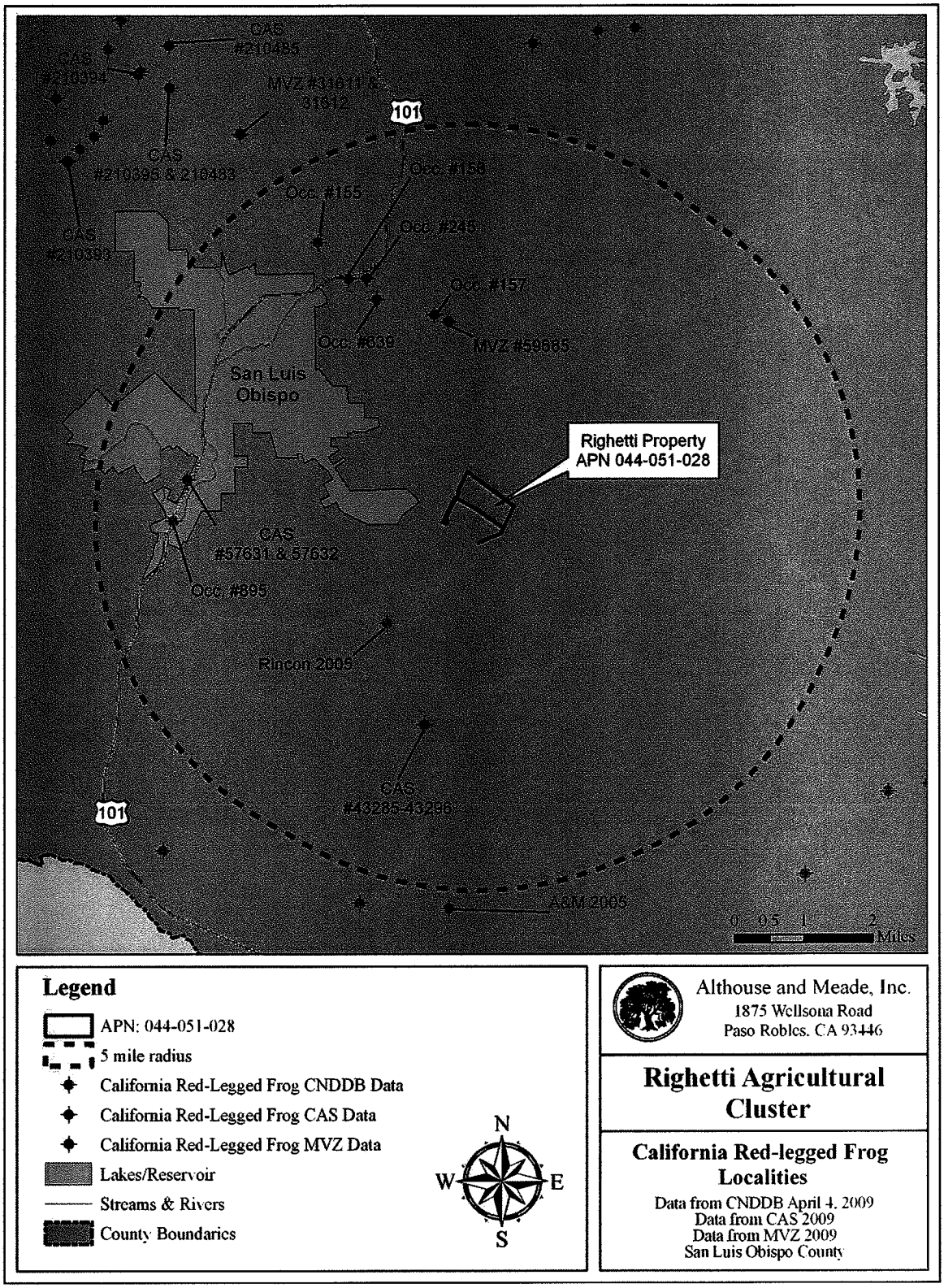

FIGURE 3. CRF LOCALITIES MAP. All CRF locality records in the vicinity of the Property obtained from our research of observation and specimen records are indicated. Boundaries of the Righetti property are indicated in red, with a five mile radius indicated by the dashed red line. Ten CRF localities are from within five miles of the Property.

Exhibit B – Photographs

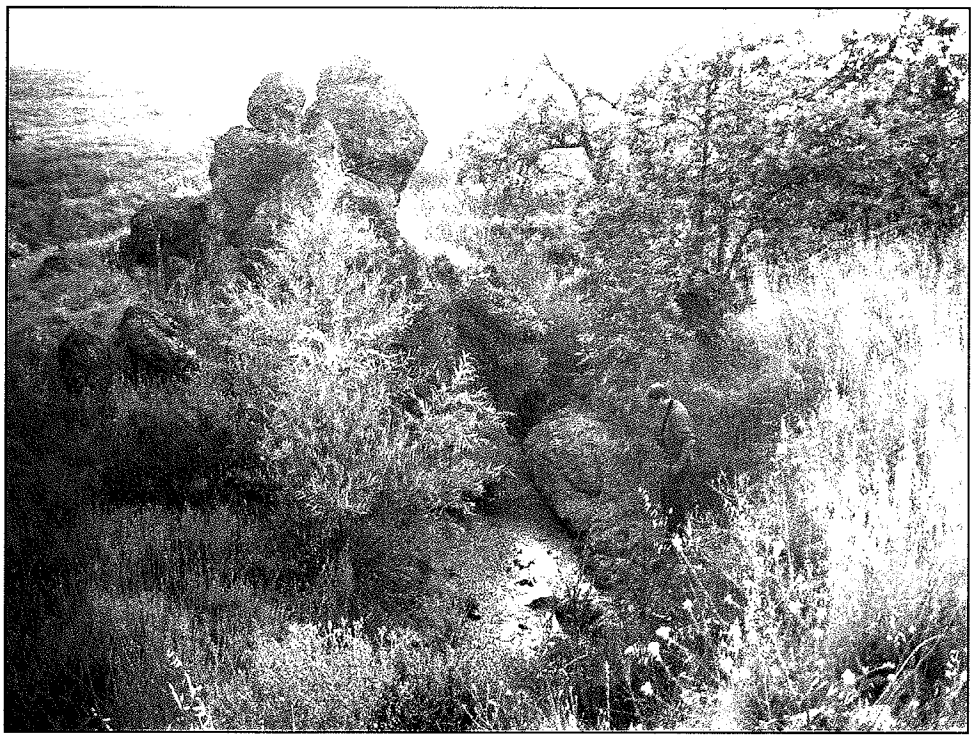

Photo 1. View west of a pool within the west primary stem north of the confluence at the base of a rock outcrop. Photo taken on June 4, 2009.

Photo 2. View north of emergent wetlands within the intermittent drainage immediately south of the dirt road crossing and confluence of the primary stems. Photo taken on June 4, 2009.

Photo 3. View north of one of several pools in the main drainage channel. This pool was estimated to be two feet deep at the center. Photo taken on June 4, 2009.

Photo 4. View southwest of the southern most pool in the main intermittent drainage. This pool was approximately 2.5 feet deep. Photo taken on June 4, 2009.

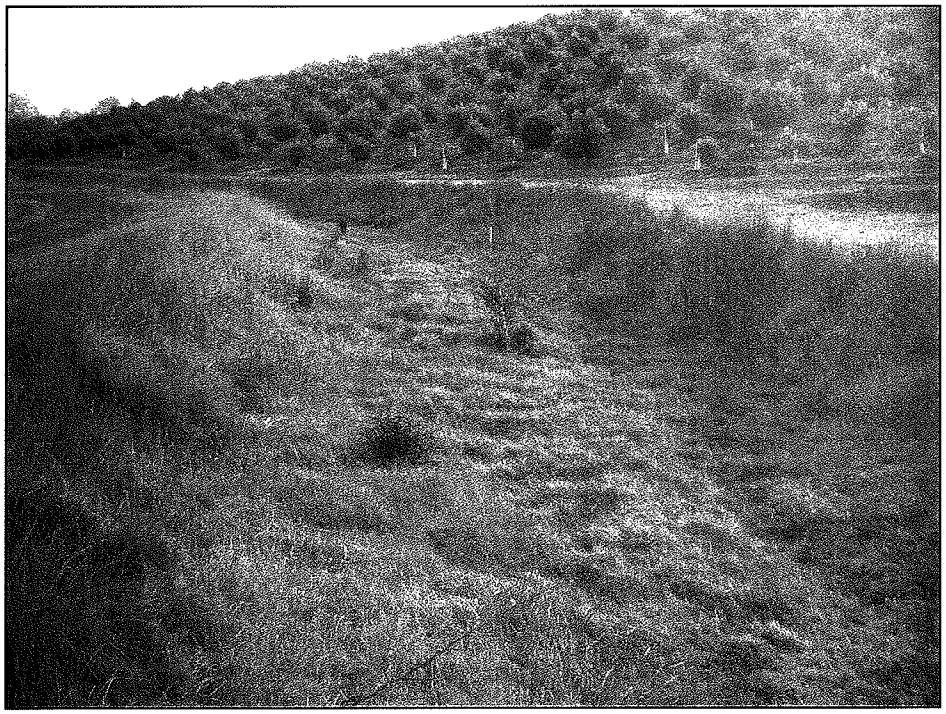

Photo 5. View north of the middle tributary on the east half of the Property, within an agricultural area. The drainage is a grassy swale with no riparian canopy or pool habitat.

Photo 6. View south of the southern tributary on the east half of the Property. This drainage is also a grassy swale with no riparian canopy of pool habitat.

Exhibit C – Wildlife Data Sheets

Wildlife Data Sheet

Date 5/21/09	**Time** 11:25am - 12:55pm	**Temp** 67°F -74	**Weather** Sunny + Breezy, 4-7mph

Client/Project #:	**Location:**	**Biologist:**
Righetti 461.05	Righetti Property, Edna Valley, SLO County	J. Dart

Habitat Types/Descriptions: Day Survey #1

Middle Drainage is 100% Dry.
South Drain w/ water + bare flow from culvert downstream to prop line
South Fork Dry.
North Fork Dry except for 1 pool @ Rock Outcrop w/ 1/2" water.

Birds	**Mammals**	**Reptiles/Amphibians**
MLARK RTHA CLSW BLPH SOSP WDBI RSHA BBBI RWBB AmKE WEKB COYT ATFL NOFL WSJA YBMP TUVU AWPE		Bullfrog Adult - beneath bridge SWPT - beneath bridge Pacific Chorus Frog - Tadpoles Bullfrog Tadpole 7-1/2", dark speckles on light ground color. Below culvert. 2nd yr. Bullfrog Adult below Raptor Roost - Tympanum observed ♂. WFLI 2 Bullfrogs vocalized when jumped - adj. to uncropped upstr. of bridge.

Aquatic Species	**Constraints**
↑ Mosquito fish below culvert ↑ Crayfish	SWPT + Bullfrog (1 adult) at pool below Orchard Bridge. P. regilla larvae. Raptor Roost in Sycamore empty.

Wildlife Data Sheet

Date 5/21/09	Time 9:05pm - 9:53	Temp 60°F	Weather Clear, Cool, No Rain

Client/Project #:	Location:	Biologist:
RIGHETTI 461.05	RIGHETTI Property, EDNA VALLEY, SLO County	J DAUT + A. WOODRUFF

Habitat Types/Descriptions: NIGHT SURVEY #1

Birds	Mammals	Reptiles/Amphibians
		POOL 1: 4 ADULT BULLFROGS P. REGILLA TADS POOL 2: 2 UNIDENTIFIED RANIDS POOL 3: 0 POOL 4: 1 ADULT BULLFROG POOL 5 1 ADULT BULLFROG POOL 6: @ 1 UNIDENTIFIED RANID. ↑ P. REGILLA THROUGHOUT, CALLING
	Aquatic Species	**Constraints**
		↑ CRAYFISH POOLS 5 & 6

Wildlife Data Sheet

Date 6-4-09	Time 6:19 - 7:19pm	Temp 64°F	Weather Partly Cloudy, Breezy 5-10 m/h

Client/Project #:	Location:	Biologist:
Righetti 461.05	Righetti Property, Edna Valley SLO County	J. Dale & A. Woodruff

Habitat Types/Descriptions: Day Survey #2

Birds	Mammals	Reptiles/Amphibians
YBMA BBBI HoWr RSHA CoYT NoMo WKDI EUST		2 Adult Bullfrogs Pour 5 Mammoth Tree Frogs Pour 1 + Tadpoles
	Aquatic Species	**Constraints**
	↑ Crawdads ↑ Mosquito Fish	

Wildlife Data Sheet

Date 6/4/09	Time 9:15pm – 10:03 pm	Temp 58F	Weather Partly cloudy 3/4 moon

Client/Project #:	Location:	Biologist:
Righetti 461.05	Righetti Property, Edna Valley SLO County	Dave Woodruff

Habitat Types/Descriptions: NIGHT Survey #2

Birds	Mammals	Reptiles/Amphibians
		- 4 Bullfrogs in first pool south of crossing - 1 Bullfrog in pool w/ willow overhang. 1 unidentified plop, then heard bullfrog call - 1 Bullfrog, out of water feeding - 1 unidentifed plop ~~Total~~ confirmed 7 - Chorus frogs calling
	Aquatic Species	**Constraints**

Wildlife Data Sheet

Date 6/11/09	Time 920pm 1020pm	Temp 58°F	Weather high clouds 0-3mph

Client/Project #:	Location:	Biologist:
Righetti 461.05	Righetti Property, Edna Valley SLO County	Dart + Woodruff

Habitat Types/Descriptions: Night Survey #3

Birds	Mammals	Reptiles/Amphibians
		7 bullfrogs 1 unidentified pup
	Aquatic Species	**Constraints**

Wildlife Data Sheet

Date 6/29/09	Time 1055pm-1140pm	Temp 60°F air 61°F water	Weather partly cloudy

Client/Project #:	Location:	Biologist:
Righetti	Righetti Property, Corn Valley SLO County	Dart Woodruff

Habitat Types/Descriptions: Night Survey #4

Birds	Mammals	Reptiles/Amphibians
		7 Bullfrogs (one calling) Several adult Chorus frogs calling
	Aquatic Species	**Constraints**
	Many crawfish	

Wildlife Data Sheet

Date 7/9/09	Time 7-7:23pm	Temp 62-64°F	Weather High Clouds, Cool 0-5mph

Client/Project #:	Location:	Biologist:
Righetti	Righetti Property, Edna Valley SLO County	DALT + Woodruff

Habitat Types/Descriptions:

H_2O Temp 61°F, 67°F in stagnant Pool.

Protocol Survey For CRF, Non-Breeding, Day #3

Birds	Mammals	Reptiles/Amphibians
		1 Bullfrog Calling 1 "Plop" - Unidentified 1 SW Pond Turtle @ Southernmost Pool
	Aquatic Species	**Constraints**

Wildlife Data Sheet

Date 7/9/09	Time 9:35 - 10:08	Temp 52°F	Weather Clear, Cool, No Wind 0-3mph

Client/Project #:	Location:	Biologist:
Righetti	Righetti Property, Edna Valley SLO County	Dart & Woodruff

Habitat Types/Descriptions:

Protocol Survey for CRF, Non-Breeding, Night #5

Birds	Mammals	Reptiles/Amphibians
		6 Adult Bullfrogs (1 calling) 2 SWPT
	Aquatic Species	**Constraints**